REMARKS

Applicants have reviewed the Office Action mailed on January 30, 2003, and the references cited therewith. Claims 79, 80 and 86 have been amended. Claims 1-78 and 111-126 have previously been canceled in response to restriction requirements. Claims 79-110 are now pending in the present application.

Specification

The Examiner has asserted that the title is not descriptive enough. Applicant has amended the title. As amended, the title is clearly descriptive of what is disclosed and claimed in the present application.

The Examiner has asserted that in regards to Paragraph 42, "all numbers in scientific notation should be expressed as powers of 10." Applicant has amended Paragraph 42 to include scientific notation.

Claim Objections

The Examiner objected to Claims 79-96 because of informalities relating to the sequence of labeling. Applicant has amended relevant claims to address the sequence of labeling objection. Accordingly, Applicant respectfully requests the withdrawal of the objections of Claims 79-96 with regards to the sequencing of labeling.

Rejection Under 35 U.S.C. § 112

Claims 80, 86 and 87 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which Applicant regards as the invention.

Applicant has amended the relevant claims. As amended, claims 80, 86 and 87 particularly point out and distinctly claim the subject matter which applicant regards as the

invention. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claims 80, 86 and 87 under 35 U.S.C. 112.

Rejections Under 35 U.S.C. § 103

Claims 76-106 were rejected under 35 USC § 103(a) as being unpatentable over admitted Prior Art Figure 3 and Kwon et al. (U.S. Patent 5,306,652). The examiner stated that "[t]he separation distance 92 of admitted prior art Figure 3 is the same as drift region 24 as shown in Kwon et al. The top gate would be separated form [sic] the drain region by this region. It would have been obvious to a person of ordinary skill in the art at the time the invention to separate the drain region by a thick dielectric region as taught by Kwon et al. in the device of admitted Prior Art Figure 3 to form a transistor with low on-resistance and controllable breakdown voltage." A prima facie rejection under 103 requires that the prior art references teach each element and provide some suggestion or motivation to combine the references.

Claim 79

In regards to independent claim 79, claim 79 includes the element "the distance between the drain contact region and the first top gate is defined by the lateral length of the first region." Neither the Prior Art Figure 3 nor the Kwon et al. reference alone or in combination teach or suggest "the distance between the drain contact region and the first top gate is defined by the lateral length of the first region," as is disclosed and claimed in Claim 79 of the present application. In response to the Examiners assertions reproduced above, the N drift region 24 in the Kwon et al. reference does not correspond to the separation region 92 of Prior Art Figure 3. Please refer to Figure 2 and Column 2, line 64 though Column 3 line 11 of the Kwon et al. reference and Paragraph 43 of the present application. Moreover, the Kwon et al. reference does not disclose or teach a first top gate as is disclosed and claimed in Claim 79 of the present application. Please refer to column 3, line 39 through Column 4 line 6 of the Kwon et al. reference. One aspect of the present invention covered by the element referenced above is the optimization of the space between the first top gate and the drain contact by eliminating alignment tolerances. Please refer to paragraphs 42, 43 and 50 of the present application. Since, the Kwon et al. reference doesn't even have a first top gate, as is disclosed and claimed in Claim

79 of the present application, there is no teaching (and their can be no suggestion) of even a space between a top gate and a drain contact. That is, the Kwon et al. reference cannot teach or suggest the spacing between a first top gate and a drain contact. Accordingly, neither the prior art Figure 3 nor the Kwon et al. reference alone nor in combination teach or suggest what is claimed in Independent claim 79. Therefore, the Applicant respectfully requests the withdrawal of the rejection of claim 79 under 35 USC § 103(a).

In addition, since Claims 80-96 depend from and further define patentably distinct Claim 79, Applicant respectfully requests the withdrawal of the rejection of claims 80-96 under 35 USC § 103(a). Since, Applicant believes these dependant claims are allowable for the reason set out above, further rejections (if any) have not been addressed in this response, however Applicant retains such right to address said rejections if a future response is necessary.

Claim 97

In regards to independent claim 97, claim 97 includes the element "wherein the lateral width of the relatively thick dielectric region defines the lateral distance between the first top gate region and the drain region." Neither the Prior Art Figure 3 nor the Kwon et al. reference alone or in combination teach or suggest "wherein the lateral width of the relatively thick dielectric region defines the lateral distance between the first top gate region and the drain region," as is disclosed and claimed in Claim 97 of the present application. In response to the Examiners assertions reproduced above, the N drift region 24 in the Kwon et al. reference does not correspond to the separation region 92 of Prior Art Figure 3. Please refer to Figure 2 and Column 2, line 64 though Column 3 line 11 of the Kwon et al. reference and Paragraph 43 of the present application. Moreover, the Kwon et al. reference does not disclose or teach a first top gate as is disclosed and claimed in Claim 97 of the present application. Please refer to column 3, line 39 through Column 4 line 6 of the Kwon et al. reference. One aspect of the present invention covered by the element referenced above is the optimization of the space between the first top gate and the drain contact by eliminating alignment tolerances. Please refer to paragraphs 42, 43 and 50 of the present application. Since, the Kwon et al. reference doesn't even have a first top gate, as is disclosed and claimed in Claim 97 of the present application, there is no teaching (and their can be no suggestion) of even a space between a top gate and a

drain contact. That is, the Kwon et al. reference cannot teach or suggest the spacing between a first top gate and a drain contact. Accordingly, neither the prior art Figure 3 nor the Kwon et al. reference alone nor in combination teach or suggest what is claimed in Independent claim 97. Therefore, the Applicant respectfully requests the withdrawal of the rejection of claim 97 under 35 USC § 103(a).

In addition, since Claims 98-106 depend from and further define patentably distinct Claim 97, Applicant respectfully requests the withdrawal of the rejection of claims 98-106 under 35 USC § 103(a). Since, Applicant believes these dependant claims are allowable for the reason set out above, further rejections (if any) have not been addressed in this response, however Applicant retains such right to address said rejections if a future response is necessary.

Claims 107-110 were rejected under 35 USC § 103(a) as being unpatentable over admitted Prior Art Figure 3 and Kwon et al as applied to claim 89 above, and further in view of Beasom (U.S. Patent Application No. 2002/0185696).

Claim 107

In regards to independent claim 107, claim 107 includes the element "further wherein the distance between the drain contact region and the first top gate is defined by the lateral length of the first region." Neither the Prior Art Figure 3, the Kwon et al. reference, nor the Beasom reference alone or in combination teach or suggest "further wherein the distance between the drain contact region and the first top gate is defined by the lateral length of the first region," as is disclosed and claimed in Claim 107 of the present application. In response to the Examiners assertions reproduced above, the N drift region 24 in the Kwon et al. reference does not correspond to the separation region 92 of Prior Art Figure 3. Please refer to Figure 2 and Column 2, line 64 though Column 3 line 11 of the Kwon et al. reference and Paragraph 43 of the present application. Moreover, the Kwon et al. reference does not disclose or teach a first top gate as is disclosed and claimed in Claim 107 of the present application. Please refer to column 3, line 39 through Column 4 line 6 of the Kwon et al. reference. One aspect of the present invention covered by the element referenced above is the optimization of the space between the first top gate and the drain contact by eliminating alignment tolerances. Please refer to

paragraphs 42, 43 and 50 of the present application. Since, the Kwon et al. reference doesn't even have a first top gate, as is disclosed and claimed in Claim 107 of the present application, there is no teaching (and their can be no suggestion) of even a space between a top gate and a drain contact. That is, the Kwon et al. reference cannot teach or suggest the spacing between a first top gate and a drain contact. Accordingly, neither the prior art Figure 3, the Kwon et al. nor the Beasom reference alone or in combination teach or suggest what is claimed in Independent claim 107. Therefore, the Applicant respectfully requests the withdrawal of the rejection of claim 107 under 35 USC § 103(a).

In addition, since Claims 108-110 depend from and further define patentably distinct Claim 107, Applicant respectfully requests the withdrawal of the rejection of claims 108-110 under 35 USC § 103(a). Since, Applicant believes these dependant claims are allowable for the reason set out above, further rejections (if any) have not been addressed in this response, however Applicant retains such right to address said rejections if a future response is necessary.

CONCLUSION

Applicant respectfully submits that the claims 79-110 are now in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 332-4720.

Respectfully submitted,

Date: 4-30-03

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